`echidna SPEC :: set_kappadel`

1. Sets boundary using [R, r, kappa, delta] representation.
2. This action is initiated by clicking on the `use R,r,K,d` button on the `geometry` tab.
3. For axisymmetric configurations, a commonly used description of the geometry is given by

$$R = R + r\cos(\bar{\theta} + \delta\sin\bar{\theta}), \quad (1)$$
$$Z = \kappa\ r\sin(\bar{\theta} + \delta\sin\bar{\theta}), \quad (2)$$

   where R, r, κ and δ are given constants which are supplied in the `m,n,d,R,r,K,d` table on the `geometry` tab.
4. Given these, the spectrally condensed Fourier representation of the boundary is constructed, so that

$$R = \sum_m R_m\cos(m\theta), \quad (3)$$
$$Z = \sum_m Z_m\sin(m\theta), \quad (4)$$

   where the R_m and Z_m are such that $M \equiv \sum m^p(R_m^2 + Z_m^2)$ is minimized with respect to tangential variations, i.e. variations of the form $\delta R = R_\theta\delta u$, $\delta Z = Z_\theta\delta u$.
5. The spectral condensation parameter $p \equiv$`pwidth` is supplied in the `nonlinearlisttable` on the `namelists` tab.

`set_kappadel.pro`

last modified on 2012-06-08 ;